

Date: Wed, 5 Oct 94 04:30:27 PDT
From: Ham-Equip Mailing List and Newsgroup <ham-equip@ucsd.edu>
Errors-To: Ham-Equip-Errors@UCSD.Edu
Reply-To: Ham-Equip@UCSD.Edu
Precedence: List
Subject: Ham-Equip Digest V94 #358
To: Ham-Equip

Ham-Equip Digest Wed, 5 Oct 94 Volume 94 : Issue 358

Today's Topics:

2-meter multimode FOR SALE
Advice sought: Blown finals on HR2600
FS AR-2 POWER AMPLIFIER
FT-530 VOX / mic compatibility
IC-211 accessories wanted
IC-751 wanted
KEEP FORSALE ARTICLES OFF HERE!!!
Kenwood th79e question and modification-list
wanted for trade: SSB/fm 2m Moble

Send Replies or notes for publication to: <Ham-Equip@UCSD.Edu>
Send subscription requests to: <Ham-Equip-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Equip Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-equip".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 4 Oct 1994 19:38:53 GMT
From: phb@syseng1.melpar.esys.com (Paul H. Bock)
Subject: 2-meter multimode FOR SALE

FOR SALE: Yaesu FT-290R Mk II 2-meter SSB/CW/FM multimode, 25 w.
output, 10 memories, 2 VFOs, scan. Absolutely mint, new condition.
\$500.00 brings it to your door. Very nice compact radio, but I
prefer a HF rig & transverter setup.

(|_|) Paul H. Bock, Jr. K4MSG Internet: pbock@melpar.esys.com
| |) Telephone: (703) 560-5000 x2062 (work)
 (703) 882-4745 (home)

Date: Mon, 3 Oct 1994 16:22:25
From: physbs@muccmail.missouri.edu (Bernhard Stepke)
Subject: Advice sought: Blown finals on HR2600

I would appreciate any help on this one.

I picked up a used HR2600 with an installed chipswitch a little while ago. I suspect that the finals have been damaged by transmitting at high SWR. Does anyone have any advice on how to fix this.?

Does anyone have a schematic that they could .GIF or FAX me. Components seem pretty cheap, maybe I should just go ahead and replace the suspect components on the final output circuit (but which ones ?).

Thanks,

Bernhard Stepke, Ph.D. physbs@muccmail.missouri.edu
Dept of Physiology University of Missouri
Columbia MO 65212 (314) 882-7666

Date: 3 Oct 1994 20:43:23 GMT
From: folson@prairienet.org (Fran Olson)
Subject: FS AR-2 POWER AMPLIFIER

=====

For sale.. Regency AR-2 Power Amplifier. (it don't work)
When it did work here are the specs.
Freq Range 144-148
Power Output 10 watts in, 32 watts out
15 " " 48 " "
20 " " 64 " "
25 " " 80 " "

Power Bandwidth (@ 25 watts in) ...75 watts from 145-148 MHz
Maximum Power input.....25 watts
Power Gain.....Approx. 5db (3.2 times input)
Efficiency.....65 to 75% (70% typical)
Power Supply Requirements:
Voltage.....13.8V DC (nominal)
Current..9 amps @ 80 watts output: 5.5 amps @ 50 watts output
Fuse Size.....10 amp. 3 AG

Silicon Transistors (total).....4
Silicon BET power transistors.. 2 Diodes.....2

It works on FM not side band.
Size is 2 1/4 x 5 1/2 x 7 1/2
If your interested contact me by email.. \$25.00 Plus shipping.
=====

--
Fran Olson (WB9ULS) email:folson@prairienet.org
P.O. Box 1122
Champaign, Il. 61824-1122
U.S.A.

Date: Mon, 3 Oct 1994 20:22:25 GMT
From: leber@panther.warm.inmet.com (Thomas Leber)
Subject: FT-530 VOX / mic compatibility

In article <thooker.56.000A06BD@ps1.nmsu.edu>,
Tracy Hooker <thooker@ps1.nmsu.edu> wrote:
>I have a friend who has an FT-530, and one of those Genisis throat mics. It
>will not operate on VOX. The 530 manual states that the Yaesu mic will work
>with VOX.
>
>Does anyone know what the Yaesu mic schematic is, or why it works on VOX and
>other mic's dont?

Is he/she using an earphone too? I'm pretty sure vox won't work without also
plugging in an external speaker (the intent being to avoid feedback).

The only Yaesu mic I know of that works with vox is the headset.

Hope this helps,
Tom

--
Tom Leber N3QKV <leber@warm.inmet.com> Intermetrics, Inc., Warminster PA USA
"Smother technology and it rebels." - Max Headroom

Date: Mon, 03 Oct 94 20:41:38 EST
From: lee@tosspot.sv.com (Lee Reynolds)
Subject: IC-211 accessories wanted

Anyone have any bits'n'bobs for the Icom IC-211 they may want to sell?

If so, please email me at lee@tosspot.sv.com.

Thanks,
Lee.

Date: Mon, 03 Oct 94 20:43:04 EST
From: lee@tosspot.sv.com (Lee Reynolds)
Subject: IC-751 wanted

Anyone have an Icom IC-751 they'd care to sell?

Please email me at lee@tosspot.sv.com.

Thanks,
Lee.

Date: 3 Oct 1994 20:36:33 GMT
From: depolo@red.seas.upenn.edu (Jeff DePolo)
Subject: KEEP FORSALE ARTICLES OFF HERE!!!

Put them in rec.radio.swap where they belong and NO CROSS POSTING!

For those of you that don't know the rules, read the intro articles, FAQ's, and netiquette docs BEFORE posting.

Date: Tue, 4 Oct 1994 11:13:03 GMT
From: tnfechne@cip.informatik.uni-erlangen.de (Torsten Fechner)
Subject: Kenwood th79e question and modification-list

Hello out there

just bought an kenwood handheld trx th79e. it is a fine handy,
but i wonder if there is no charger build in.

the dealer said, the accu is automaticly charged and controlled not
to over charge it! the manual says the opposite!

now the question: may i leave the accu in the trx while operating with it?
cause it damages to it if i put the trx inclusive the
battery in it on a dc-surply all the time?

please answer
thanks so long

ps:the following text is from the internet and from packet radio
in which i collect any information about hidden functions in the TH79.

enjoy it!

CHANGING THE BANDS:

=====

Press the F-key and then press the LOW-button to toggle between Air-Band (340Mhz on the VHF Band) or the Phone-Band (850Mhz on the UHF band) and the amateur radio band.

CROSBAND-REPEATER:

=====

The TH-79 does go into X-Band repeat. Press the "F" key then the "MONI" key to enter repeat mode. Use the same to return to normal. There is a 10 min transmit limit so it's not useable for long duration monitoring of a continuous transmission. That's understandable in light of the number of horror stories I've heard of people frying their HT's in repeat mode.

CLONING THE TH79E

=====

To clone the memory contents of two radios on the air. The clone procedure is same with all others. (use of DTMF tones, do not disturb transmission etc.) You must take care that both radios are really same: both have extended range or not, both are E-version or not etc.

It will cause some problems if you try to clone i.e. an E version without expansion into a A- or J version.

If you have both radios please hold down the -0- key / PAG L Key when you switch on the radio. So you see the letters CLONE on the display.

Please push the ptt on the radio which has to be the master.

It takes a time to transmit all memory with maybe names, call sign etc. After Clone is finished you see END written in Display. Best is to switch of both radios. After switching on again you will have two same radios !

EXTENDED RX/TX

=====

Thats all...Don't cut the green wire, or install any jumpers as before. This mod is the official one from Kenwood, taken from a data sheet put out by them.

1. Open the unit by removing three screws from the back and one under the DC power input cover. Carefully separate the front and back pieces. The two case halves may be disconnected by pulling the wired plug and by prying the brown latch on the ribbon cable connector up enough to release it.
2. On the front PC board in the lower right corner as viewed from the rear with the knobs pointing up there are seven spots for diodes in a row,

with one diode missing.

```
| o o o o x o o |  
-----  
 2 3 4 5 6 7 8
```

The numbers are D302-D308, left to right, with D306 missing.

3. Remove diodes D304 and D307.

Now you must have this:

```
| o o x o x x o |  
-----  
 2 3 4 5 6 7 8
```

5. Reassemble and apply power. Mod complete.

Now the ranges:

67-174.995 and 400-511.995 RX

136-174.995 and 400-511.995 TX.

PS: Just cutting the green wire by the recharging jack is the MARS mod.. Don't cut if you intend to do the above mod..

Discription of the diodes:

=====

In my HT diode D303 are not installed, green wire cut. RX as wide as possible (69-179Mhz) and TX from about 130 to 179 MHZ. No crossband repeater.

Now I tried to modify the handy, but i was not carefully.

I removed D305 and the Bander goes in the Lock-key modus:

All keys are locked in cases of the Lock-switch.

QRG disapeared and the channel nummbers shine on the display.

Then I put D307 to the place I removed D305:

Now I had the TH79A version with no light, but a call channel installed.

All functions are the same as before, but TX was only possible on the amateur radio bands. Automatic shift keying as discriped in the manual for the american version. (Not to usefull in Europe :-), but you can change the QRG's now....)

Not the situation on the TH79A I wand, I remount diode D306 to the location of diode D307 to change to TH79E back. And now the work was finished:

Transmitting as described above, no lock function activ, crossband repeater enabled. THE MENU-SETTING 18 are activ: "Answer back function" for the paging mode: transmitts an code back to show that the call received.

But the continues TRX showing up later in this doc has not been verified.

The purpose of diode D302 was not to be able to find out because the first diode I wand to unmount had been damaged ;-(

Here is the MARS/CAP modification

=====

1. Remove battery.

2. Open case by first removing 3 screws (#00 Phillips) on back and 1 screw on side hidden underneath the rubber flap covering the DC power jack. Gently pry apart starting at top; BNC connector will move with back, knobs with front.

3. Spread unit out. Wires will "hinge" on the side with the PTT button.
4. Looking on the back of the keypad (front) half, locate green wire on upper left, just below the CTCSS decoder module.
5. Neatly cut this green wire, and tuck back in so ends won't touch each other or other components.
6. Reassemble.
Programmed memory will be lost since the CPU will notice the strap change and reset itself.

Before: VHF RX - 118.000-173.995 TX - 144.000-147.995
UHF RX - 438.000-449.995 TX - 438.000-449.995
After: VHF RX - 118.000-173.995 TX - 142.000-151.995
UHF RX - 420.000-449.995 TX - 420.000-449.995

If I read the schematic right, the green wire corresponds to "W301", which also serves the same purpose as removing "D308". More research needs to be done on other mods; I'm especially interested in extending UHF receive beyond 450. There is a row of diodes right below the uC which appear to be D302

Remote Base Operation with Kenwood 732/733

=====

Kenwood has now simplified remote base operation of their mobile rigs with the TH79.

I will not give a step by step on how to control the mobile rigs, since they are different. However, to really understand this feature, I would first get to know the remote control feature on the mobile very well. This makes the following explanation a little clearer!

To access this feature, hold [PTT] and [MR] while [POWER ON].

The display will indicate -RC-, which I presume means 'Remote Control'.

If you have correctly matched your DTSS codes, frequencies, etc, the dual bander's keypad now becomes a function pad. Pressing certain keys enables or disables functions on the mobile rig by sending the DTMF sequences for you.

Please note that all this function does is send the DTMF tones over the air to control your mobile rig. I have not made a list of what each key does, but as the 79 sends the DTMF tones, the display will indicate the function. (i.e. - RPT ON, RPT OFF, TONE ON, TONE OFF, etc.)

"The "RC" function is configured to directly control radios such as the TM-732. In fact, if you look at the layout of the microphone remote commands for the 732 it very closely matches the key assignments for of the "RC" mode. Since I have a TM-732 installed in my car, I had a chance to try this out and it's VERY convenient. Everything from direct frequency

entry with the "F" key to enabling X-Band repeat. I'm really surprised they aren't marketing this feature of the radio."

Measured specifications of TH79

=====

Band - VHF -----

Frequency	Sens (uV)	Power	Mode
-----	-----	-----	-----
108	4	-	A3
110	2	-	"
115	.75	-	"
120	.40	-	"
125	.30	-	"
130	.30	-	"
135	.30	-	"
140	.12	2.9	F3
145	.12	2.9	"
150	.13	2.8	"
155	.15	2.4	"
160	.18	1.9	"
165	.20	1.45	"
170	.21	1.10	"
175	.30	0.85	"
179.995	.35	0.70	"

Band - VHF (2) (set to 300Mhz) -----

Frequency	Sens (uV)	Power	Mode
-----	-----	-----	-----
300	50/75	-	A3/F3
320	4/20	-	"
340	.3/.6	-	"
360	.2/.5	-	"
380	.2/.6	-	"
400	.2/.75	-	"

Band - UHF -----

Frequency	Sens (uV)	Power	Mode
-----	-----	-----	-----
400	11	1.0	F3
410	4	1.5	"
420	1	1.85	"
430	.2	2.2	"
435	.12	2.3	"
440	.10	2.5	"

445	.10	2.5	"
450	.10	2.5	"
455	.15	2.3	"
460	.16	2.3	"
465	.20	2.0	"
470	.45	1.8	"
480	1	1.6	"
490	2	1.3	"
500	6	1.1	"
510	no RX over 509	0.8	"

BTW, close inspection of the RF deck in my radio shows no obvious missing parts. I didn't remove the board to check the other side, but my suspicion is that the 800 MHz parts are installed. I'd be interested in input from others on that. So far I've not discovered how to make it display any 800 MHz frequencies though."

CONTINUOUS TRX

=====

Pressing the VFO-key and the PTT key after a short beep and waiting a few seconds with these two keys pressed will bring the th-79e into continuous transmit mode for about 10 minutes until TOT ends.

This will also work with the MR key.

end of the hidden functions

```
+-----+
!Torsten Fechner   Studing-QTH: Erlangen,JN59MN           Home-QTH: Passau,JN68R0 !
!Internet-email:   tnfechne@cip.informatik.uni-erlangen.de !
!Amateur-Radio  AX25 :  DG7RO@DB0WGS.#BAY.DEU.EU           !
!                  tcpi/ip: DG7RO@DG7RO.AMPR.ORG           !
!                  44.130.60.94                             44.130.59.94 !
+-----+
```

Date: 4 Oct 1994 12:57:20 GMT
 From: kedz@banach.WPI.EDU (John Kedziora)
 Subject: wanted for trade: SSB/fm 2m Moble

Looking for a 'newish' (1983 and up) ssb/fm 2m moble unit w/ approx 25W output.

Nothing in particular, although a few memories and pll on fm is very desireable.

I have an IC02at handheld (2m) w/ 5W battery and charger, lether 'twist' case and

speaker mik, all in good condidtion.

A clegg fm 28 synthesized 25W 2m fm moble (great packet rig) with tnc cable.

Pk88 tnc w/ manual and cable for above (2).

All come with manuals.

I also have some misc test equiptment if interested.

I'll trade all or some depending on what you have and what your interested in,
plus a few bucks if necessary.

please reply by e-mail.

Thaxs~

John Wu3c

(kedz@wpi.wpi.edu)

End of Ham-Equip Digest V94 #358
